SOUTH FLORIDA WATER MANAGEMENT DISTRICT

RULE TITLE:	**RULE CHAPTER:**
Definitions	40E-41.421
Southwest Florida Basin	40E-41.423
Implementation	40E-41.433
Application of Part V	40E-41.443
Conditions for Issuance	40E-41.463

PURPOSE AND EFFECT: To establish supplemental water quality criteria for Environmental Resource Permits in the Southwest Florida Basin by providing a menu approach for selecting source controls and Best Management Practices to enhance water quality.

SUBJECT AREA TO BE ADDRESSED: Supplemental water quality criteria for Environmental Resource Permits in the Southwest Florida Basin.

SPECIFIC AUTHORITY: 373.044, 373.113, F.S.

LAW IMPLEMENTED: 373.413, 373.416, F.S.

RULE DEVELOPMENT WORKSHOPS WILL BE HELD AT THE DATES, TIMES, AND PLACES SHOWN BELOW:

DATE AND TIME: July 27, 2005, 10:00 a.m. - 12:00 p.m.
PLACE: South Florida Water Management District
Lower West Coast Regional Service Center
2301 McGregor Boulevard
Fort Myers, FL 33901

DATE AND TIME: July 27, 2005, 2:00 p.m. - 4:00 p.m.
PLACE: South Florida Water Management District
Big Cypress Basin Administration Office
Mary Ellen Hawkins Building
6089 Janes Lane
Naples, FL 34109

Although Governing Board meetings, hearings and workshops are normally recorded, affected persons are advised that it may be necessary for them to ensure that a verbatim record of the proceeding is made, including the testimony and evidence upon which any appeal is to be based. Persons with disabilities or handicaps who need assistance may contact the South Florida Water Management District Clerk's Office, at (561) 682-2087 at least two business days in advance to make appropriate arrangements.

THE PERSON TO CONTACT REGARDING THE PROPOSED RULE DEVELOPMENT IS: Damon Meiers, South Florida Water Management District, Post Office Box 24680, West Palm Beach, FL 33416-4680, telephone 1-800-432-2045, extension 6876 or (561) 682-6876 (internet: dmeiers@sfwmd.gov). For procedural issues - Jan Sluth, Paralegal, Office of Counsel, South Florida Water Management District, Post Office Box 24680, West Palm Beach, FL 33416-4680, telephone 1-800-432-2045, extension 6299 or (561) 682-6299 (internet: jsluth@sfwmd.gov).

THE PRELIMINARY TEXT OF THE PROPOSED RULE DEVELOPMENT IS:

40E-41.421 – Definitions

When used in this Part:

(1) "Best Management Practices (BMPs)" means structural and non-structural facilities or practices intended to reduce pollution either through source control or treatment of stormwater.

(2) "Primary Detention/Retention Treatment System or Component" means that portion or component of the surface water management system providing the volumetric requirements of Section 5.2.1(a) of the Basis of Review For Environmental Resource Permit Applications Within The South Florida Water Management District.

(3) "Post Construction Pollution Prevention Plan" means a document that provides details of controls and practices to be implemented after construction is completed to reduce or eliminate the generation and accumulation of potential stormwater runoff contaminants at or near their source. The Post Construction Pollution Prevention Plan shall include plans for surface water management system operation and maintenance, nutrient and pesticide management, solid waste management, and/or animal/livestock waste storage and disposal if applicable. The Plan shall require maintenance, operation and annual inspection of the surface water management system.

Specific Authority: 373.044, 373.113, F.S.
Law Implemented: 373.413, 373.416, F.S.
New _____

40E-41.423 - Southwest Florida Basin

The Southwest Florida Basin boundary is shown in Figure V-1.
Specific Authority: 373.044, 373.113, F.S.
Law Implemented: 373.413, 373.416, F.S.
New _____

40E-41.433 – Implementation

(1) The rules contained in this part will be applied to all projects within the Southwest Florida Basin which do not have complete applications, as evidenced by a letter of completeness under Rule 40E-1.603(1)(a) F.A.C., on the effective date of the rule. An application which is submitted and complete prior to the effective date of this rule shall be reviewed under the rules in existence prior to the effective date of this rule unless the applicant elects to have such activities reviewed under this rule.

(2) Activities approved in a conceptual, general, or individual permit which were permitted prior to the effective date of this rule, or exempt from regulation, shall be exempt from this rule. This exemption shall be for the plans, terms, and conditions approved in the permit and shall be valid for the term of such permit. This exemption shall also apply to any modification of the plans, terms and conditions of the permit, including new activities which are consistent with a conceptual approval. However, this exemption shall not apply to a modification that would extend the permitted time limit for construction beyond 2 additional years or to any modification which is reasonably expected to lead to substantially different water resource impacts, unless that modification would lessen the impact to water resources.

Specific Authority: 373.044, 373.113, F.S.

Law Implemented: 373.413, 373.416, F.S.

New

40E-41.443 - Application of Part V

All projects located within the Southwest Florida Basin which require permits pursuant to Rule 40E-4.041, F.A.C. shall be constructed, altered, operated, maintained and abandoned in accordance with the criteria specified in Rules 40E-4.301, 40E-4.302, and 40E-40.302, F.A.C., as applicable, (Environmental Resource Permits Conditions for Issuance) and Rule 40E-41.463, F.A.C. (Conditions for Issuance of Environmental Resource Permits in the Southwest Florida Basin).

Specific Authority: 373.044, 373.113, F.S.

Law Implemented: 373.413, 373.416, F.S.

New

40E-41.463 - Conditions for Issuance of Environmental Resource Permits in the Southwest Florida Basin

(1) A Post Construction Pollution Prevention Plan shall be submitted as part of the permit application. If a property owners' association or other entity will be formed that is responsible for operating and maintaining the surface water management system, the Post Construction Pollution Prevention Plan shall be incorporated into the entities' Articles of Incorporation, Declaration of Protective Covenants or Deed Restrictions.

(2) Records of maintenance, operation and inspection required pursuant to the Post Construction Pollution Prevention Plan shall be kept by the permittee and shall be made available for inspection and copying to the District staff upon request to determine compliance with the Post Construction Pollution Prevention Plan and District rules.

(3) The criteria below shall apply to all projects within the Southwest Florida Basin that are forty (40) acres or more in size or propose impacts to five (5) acres or more of wetlands; except that the criteria below shall not apply to agricultural, public roadway or airport projects.

(a) An additional fifty (50) percent retention/detention water quality treatment is required over that required in Section 5.2.1(a) of the Basis of Review for Environmental Resource Permits within the South Florida Water Management District.

(b) Dry detention water quality treatment systems shall not be used as the primary detention/retention component of the water management system. Dry detention

water quality treatment components shall only be incorporated as pretreatment components upstream of the primary detention/retention components of a surface water management system.

(c) Wet detention areas shall provide an average hydraulic residence time of at least fourteen (14) days during the wet season (June – October). The maximum detention area depth allowed in calculations to demonstrate compliance with the average hydraulic residence time is twelve (12) feet from the control elevation. The actual depth may be greater than twelve (12) feet to a maximum of twenty (20) feet if it can be demonstrated that the additional depth will not cause water quality degradation of the water discharging from the wet detention area.

(d) Wet detention areas shall include planted littoral zones covering a minimum of XXXX (XX) percent of the wet detention areas measured at the control elevation. The depth of the littoral zone must be from one (1) foot above to three (3) feet below the control water elevation and have a slope no steeper than 4:1 (horizontal:vertical). The littoral zone must be planted at a minimum density of two (2) feet on-centers. Location of the plantings, species to be planted and a maintenance plan shall be submitted as part of the application.

(e) The site and the surface water management system design shall include: a minimum of two (2) BMPs from Group A of Table V-1; and a minimum of two (2) BMPs from Group B of Table V-1; and a minimum of one (1) BMP from Group C of Table V-1. The District will consider alternative BMPs which are not listed in Table V-1, provided that the application includes: descriptions and construction plans for the proposed BMPs; information demonstrating the effectiveness of the proposed BMPs; calculations that demonstrate that no impacts to flood protection will occur; and operation and maintenance plans for the proposed BMPs.

(f) If the activities proposed will produce livestock or equestrian waste, the Post Construction Pollution Prevention Plan must provide for the management, storage and disposal of such wastes primarily through the use of waste containment which retains solids and liquids and transports excess waste off-site. Restrictions on the type and number of animals allowed may also be included in the Post Construction Pollution Prevention Plan.

Specific Authority: 373.044, 373.113, F.S.

Law Implemented: 373.413, 373.416, F.S.

New _____

TABLE V-1
Southwest Florida Basin Best Management Practices (BMPs)

BMP	Description
Group A – Site Design Source Controls and BMPs	
1. Reduced Turf Coverage	For projects with less than seventy-five percent (75%) impervious area within the project area, less wet detention areas or wetland and upland conservation areas established in a conservation easement, the following BMPs may be utilized: a. Projects with turf coverage of less than or equal to fifty percent (50%) of the pervious area of the developed portion of the project (excluding wetland and upland conservation areas) shall receive credit for one (1) BMP.
	b. Projects with turf coverage of less than or equal to a total of thirty percent (30%) of the pervious area of the developed portion of the project (excluding wetland and upland conservation areas) shall receive credit for two (2) BMPs.
2. Native Landscape Plantings	a. Projects with non-turf plantings consisting of at least fifty percent (50%) native species, of which fifty percent (50%) must be drought tolerant, shall receive credit for one (1) BMP. Native species are defined in Nelson, Gil. *Florida's Best Native Landscape Plants: 200 Readily Available Species for Homeowners and Professionals*, University Press of Florida, 2003
	b. Projects with non-turf plantings consisting of at least seventy-five percent (75%) native species, of which seventy-five percent (75%) must be drought tolerant, shall receive credit for two (2) BMPs.

BMP	Description
3. Stormwater Recycling	Projects which incorporate systems for storing stormwater runoff to be used for irrigation or other reuse shall receive credit for one (1) BMP. Reuse systems must be designed with surface water management systems that ensure no impacts to flood protection or water quality treatment. An operating entity meeting the requirements of Section 9.1, Basis of Review for Environmental Resource Permits within the South Florida Water Management District dated _____, must be designated.
4. Rooftop Runoff	Building rooftop runoff which will be managed using one or more of the following shall receive credit for one (1) BMP: a. Bioretention: building and home rooftop runoff must be discharged onto shallow landscaped depressions designed to capture the first 0.5 inches of roof runoff, which are planted with native vegetation, and backfilled with soil-rock aggregate (bioretention cell). An analysis is required of the pervious area's ability to infiltrate roof runoff and accept roof runoff from the design storm event without erosive impacts. b. Vegetated Roof Cover (for non-residential buildings): for engineered roofing systems that allow for the propagation of rooftop vegetation while protecting the integrity of the underlying roof, the minimum coverage of the roof area must be sixty percent (60%). A maintenance and monitoring plan shall also be submitted.
5. Cisterns	Building and home rooftops which direct fifty percent (50%) of their runoff into cisterns for storage and reuse shall receive credit for one (1) BMP.

BMP	Description
6. Pervious Pavement	Projects which incorporate and maintain pervious or porous material on parking lots, driveways, or other applicable areas shall receive credit for one (1) BMP. The projects must include a minimum of thirty percent (30%) of non-roadway vehicle impervious area. Details of pervious pavement area foundation design, construction methods and a post construction maintenance plan shall be submitted with the permit application.
7. Detention/Retention Pond Side Slope Buffers	Projects which incorporate planted non-turf side slopes leading to stormwater detention/retention ponds located above normal water control elevation designed to prevent direct runoff from turf landscapes into ponds shall receive credit for one (1) BMP. A minimum coverage of fifty percent (50%) of the pond perimeter is required. Plans must demonstrate the area will not cause erosion impacts, will be properly maintained, and will maintain access for maintenance. Average five (5) foot wide strips planted on a minimum of two (2) foot centers with wetland and/or transitional plant species are required.
Group B – Stormwater Conveyance and Pretreatment BMPs	
1. Filter Strips / Vegetated Stormwater Inlets, or Vegetated Swales	a. Projects which contain vegetated buffers with less than five percent (5%) slope located between impervious areas and stormwater inlets shall receive credit for one (1) BMP. There must be a minimum of twenty (20) feet between impervious areas and inlets. The buffer area must be designed to minimize concentrating flows by spreading the flow over an area of at least five (5) feet wide. A minimum of thirty-five percent (35%) of the proposed project drainage area must be designed to discharge through the vegetated buffers. Areas that do not discharge through vegetated buffers must not be areas of high potential pollutant discharges, unless they have an alternate pretreatment BMP. For the purposes of this table, areas of high potential pollutant discharges are defined as areas where potential pollutants are stored or transferred and include maintenance areas, trash bin areas, fueling areas, and loading docks.

BMP	Description
	b. Projects where a total of seventy percent (70%) of the proposed project drainage area is designed to discharge through the vegetated buffers described above shall receive credit for two (2) BMPs.
2. Vegetated (Grassed) Swales	Projects which utilize vegetated or grassed swales to receive stormwater runoff from roadways and parking lots, as opposed to curbs, gutters, or culverts, to convey stormwater shall receive credit for one (1) BMP. A minimum of thirty-five percent (35%) of the proposed project drainage area must be designed to discharge through these swales. Areas that do not discharge through these vegetated buffers must not be areas of high potential pollutant discharges, unless they have an alternate pretreatment BMP.
3. Sediment Trap Structures	a. Projects which incorporate the installation of baffle boxes, or equivalent proprietary designs, upstream of the primary detention/retention system, shall receive credit for one (1) BMP. Long-term operation plans must include mandatory manual or vacuum cleanout of accumulated sediments. An operating entity meeting the requirements of Section 9.1, Basis of Review for Environmental Resource Permits within the South Florida Water Management District dated _____, must be designated and a maintenance schedule must be established. A minimum of thirty-five percent (35%) of the proposed project drainage area must be designed to discharge through these facilities. Areas that do not discharge through these facilities must not be areas of high potential pollutant discharges, unless they have an alternate pretreatment BMP.
	b. Projects where a total of seventy percent (70%) of the proposed project drainage area is designed to discharge through the above described baffle boxes or equivalent proprietary designs shall receive two (2) BMP credits.

BMP	Description
4. Dry Detention / Retention Pre-Treatment	a. Projects with dry detention/retention pre-treatment areas constructed upstream of primary detention/retention systems shall receive credit for one (1) BMP. A minimum additional one-half (½) inch detention/retention volume is required in addition to the detention/retention volume required in the primary detention/retention system. These areas are not subject to the twenty-five percent (25%) and fifty percent (50%) volume credits provided in Section 5.2.1 of the Basis of Review for Environmental Resource Applications within the South Florida Water Management District. A minimum of thirty-five (35%) of the proposed project drainage area must be designed to discharge through the dry detention/retention pretreatment areas. Portions of the project that do not discharge through dry detention/retention pretreatment areas must not be areas of high potential pollutant discharges, unless they have an alternate pretreatment BMP.
	b. Projects where seventy percent (70%) of the proposed project drainage area is designed to discharge through the dry detention/retention pretreatment areas described above shall receive two (2) BMPs.
Group C – Stormwater Management System Design Enhancement BMPs	
1. Extended Hydraulic Residence Time	Surface water management systems which provide for an extended average Hydraulic Residence Time of at least 21 days during the wet season (June – October) shall receive credit for one (1) BMP. The maximum detention area depth allowed in calculations to demonstrate compliance with the average hydraulic residence time is twelve (12) feet from the control elevation. The actual depth may be greater than twelve (12) feet to a maximum of twenty (20) feet if it can be demonstrated that the additional depth will not cause water quality degradation of the water discharging from the wet detention area.

BMP	Description
2. Wetlands	Projects which utilize on-site created wetlands in a treatment train as a polishing cell after primary treatment shall receive credit for one (1) BMP. Created wetland mitigation areas are acceptable if primary treatment is provided prior to discharge into the mitigation area. Discharges into wetlands must not adversely impact the wetlands. Potential impacts include, but are not limited to, alteration of hydroperiod, erosion, recruitment of exotic species, or other water quality impacts.
3. Littoral Berms / Settling Basins / Phyto-Zones within Detention Areas	Projects with constructed basins within detention areas (lakes) below the control elevation that provide an area for discharges into the lake to disperse, allowing pollutants to settle out of the water column prior to overflowing an earthen or rock berm, into the remainder of the detention area shall receive credit for one (1) BMP. The earthen or rock berm must be located at or below the control elevation. A minimum of seventy percent (70%) of the proposed project drainage area must be designed to discharge through these facilities. Areas that do not discharge through these facilities must not be areas of high potential pollutant discharges, unless there is an alternate pretreatment BMP.
4. Planted Filter Marsh	Projects designed with a planted wetland marsh just upstream of project outfall structure shall receive credit for one (1) BMP. These areas shall be designed as shallow areas with a minimum size of ten percent (10%) of the total lake area measured at the control elevation constructed within the lake and planted with wetland vegetation such that all stormwater must flow through the marsh area prior to discharging through the project outfall structure. A sump area between the marsh area and outfall structure is also required. Detailed plans of the marsh area are required that include marsh area location, dimensions, elevations, species to be planted and a maintenance plan.

BMP	Description
5. Increased Flow Path	Projects which incorporate internal levees and/or berms within the stormwater detention ponds or locate inflow and outflow structures to maximize effective treatment time by increasing the flow path distance shall receive credit for one (1) BMP. The minimum flow path distance between inflows and outflows for each pond must be twice the average width of the pond.
6. Chemical Treatment	Addition of chemicals, such as Alum, to the stormwater management system shall result in credit for one (1) BMP. Detailed plans are required on chemical injection methods, rates, mixing of chemicals and stormwater, calculations for sizing settling basin, and location of each component. Operation and maintenance plans and monitoring of the system effectiveness is also required. The operating entity shall be a government entity with resources to operate and maintain the system.

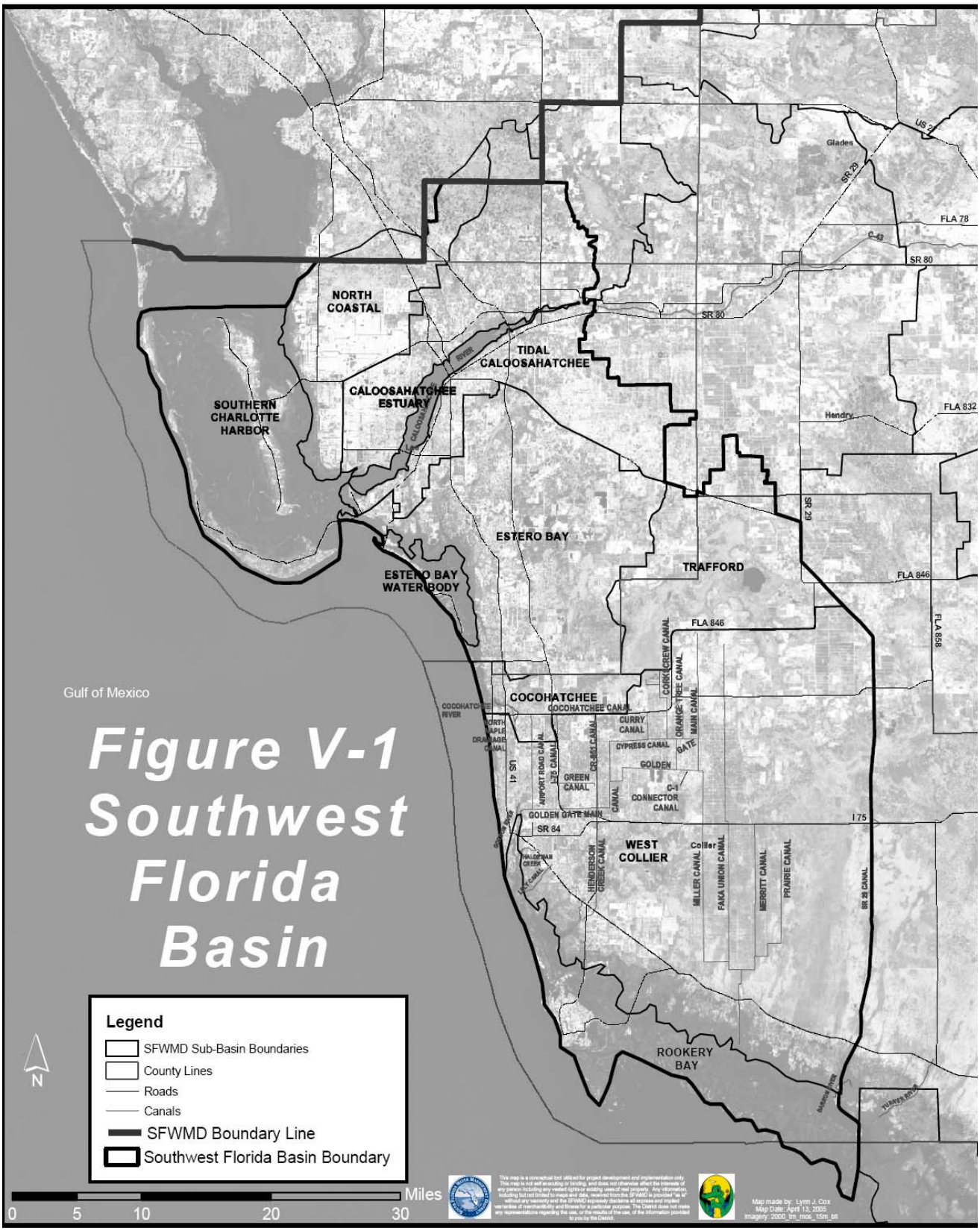
Figure V-1
Southwest Florida Basin
Gulf of Mexico
NORTH COASTAL
TIDAL CALOOSAHATCHEE
CALOOSAHATCHEE ESTUARY
SOUTHERN CHARLOTTE HARBOR
ESTERO BAY
ESTERO BAY WATER BODY
TRAFFORD
COCOHATCHEE
COCOHATCHEE CANAL
CURRY CANAL
CORKSCREW CANAL
ORANGE TREE CANAL
MAIN CANAL
CYPRESS CANAL
GOLDEN GATE CANAL
GREEN CANAL
C-1 CONNECTOR CANAL
GOLDEN GATE MAIN
WEST COLLIER
HENDERSON CREEK CANAL
MILLER CANAL
FAKA UNION CANAL
MERRITT CANAL
PRAIRIE CANAL
SR 29 CANAL
ROOKERY BAY
Glades
Hendry
Collier
US 27
SR 29
FLA 78
C-43
SR 80
SR 30
FLA 832
FLA 846
FLA 858
SR 84
I 75
US 41
Legend
SFWMD Sub-Basin Boundaries
County Lines
Roads
Canals
SFWMD Boundary Line
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